

# Connecticut Hospital Environmental Roundtable

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- What Are Environmentally Preferable and Biobased Products?
- What Are the Benefits?
- Why Use Them?

# What Is Environmentally Preferable Purchasing?

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- **Purchasing products or services that “have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance or disposal of the product or service.”\***

\*U.S. EPA

# Greenwashing

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- **Manufacturers may claim their products are:**
  - **Environmentally Friendly**
  - **Nontoxic**
  - **Healthy**
  - **Without certification we do not know for sure.**
  - **Material safety data sheets do not give all the information and are hard to understand.**

# How Do We Know If Products Are Environmentally Preferable?

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- **Green Seal Certified**
  - **Products have been evaluated by an independent third party for their compliance with a set of standards developed by a stakeholder group.**
- **Manufacturer Certified**
  - **The manufacturer guarantees that the product meets certain criteria or provides verification that an independent laboratory has tested the products and found them to comply with certain criteria.**

# Green Seal Criteria

## Cleaning Products Shall:

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- **Not contain**
  - Carcinogens
  - Reproductive toxins
  - Skin and eye irritants
  - Skin sensitizers
- **Not be combustible**
- **Not contribute to photochemical smog, tropospheric ozone production or poor IAQ**
- **Not be toxic to aquatic life**
- **Be readily biodegradable**

# Green Seal Standards:

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- **Can the packaging be recycled or reused?**
- **Is the product a concentrate?**
- **Is there more than 0.5% by weight of total phosphorus?**
- **Are fragrances identified on the material safety data sheet?**
- **Is training offered on the proper use of the product?**
- **Does the product contain alkylphenol ethoxylates, dibutyl phthalates or heavy metals?**

# Manufacturer Certified May Include:

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- **BioBased**
- **Biodegradable and non-toxic**
- **Concentrated**
- **No chlorine bleach**
- **No petro-chemical compounds**
- **No phosphates or phosphate derivatives**
- **No VOCs**

# What is BioBased?

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- **“A product determined by the Secretary to be a commercial or industrial product (other than food or feed) that is composed, in whole or in significant part, of biological products or renewable domestic agricultural materials (including plant, animal, and marine materials) or forage materials.”\***

\*Definition used for Federal Biobased Product Preferred Provider Program



# What is BioBased?

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- **“Relies on plant or animal materials as the main ingredient.**
- **The plants or animals utilized are a renewable resource.**
- **With some exceptions, generally do not contain synthetics, toxins or environmentally damaging substances.”\***

**\*Biobased Manufacturers Association**

# BioBased and Green Seal Certified

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- **Some BioBased Products are Green Seal Certified.**
- **The certification process is expensive favoring the larger manufacturers.**
- **Many Green Seal Certified products are petroleum based.**
- **There is no research comparing BioBased with Petroleum Based products so it is difficult to say with certainty that BioBased is a better choice.**

# Benefits of BioBased

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- **Reduces our dependence on imported oil.**
- **Reduces the need to drill for oil in our environmentally sensitive areas.**
- **Provides a stable market for our farmers.**
- **Avoids many of the health and environmental consequences of using fossil fuels.**
- **Products may be healthier and safer for the user and the environment.**

# **Why Is It Important To Use Environmentally Preferable Products?**

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- **A single janitorial worker uses, on average, 194 lbs of chemicals annually, approximately 25% of which are hazardous substances.**
- **Janitorial workers experience one of the highest rates of occupational asthma.**
- **6 out of 100 janitors are injured each year**
  - **20% are serious burns to the eyes or skin**

# A Mount Sinai Study Found\*

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**The same chemicals used in common cleaning products were in the blood and urine of a sampling of Americans including:**

- **VOCs**
- **Dibutyl Phthalate**

\*Mount Sinai School of Medicine

Environmental Working Group and Commonweal

<http://www.ewg.org/reports/bodyburden/es.php>

# Chemical Specific Health and Safety

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- **2-Butoxyethanol**
  - **Absorbs directly through the skin**
  - **Can effect the developing fetus**
  - **Is a suspected carcinogen**
  - **Can cause liver and kidney damage**
- **Common in:**
  - **Surface cleaners (glass, all purpose)**
  - **Specialty cleaners (disinfectant, carpet)**

# Chemical Specific Health and Safety

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- **Dibutyl Phthalate**
  - **Endocrine disruptor**
  - **Reproductive system toxin**
  - **Mutagen**
  - **Can cause liver and kidney damage**
- **Common in:**
  - **Floor finishes**
  - **Floor strippers**

# **Why is Environmentally Preferable Cleaning Important?**

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- **Cleaning products adversely affect indoor air quality (IAQ) which can impact the health of occupants.**
- **Cleaning products often contain carcinogens, asthmagens, endocrine disruptors, and toxins that target various body systems.**
- **These chemicals can have a greater impact on a hospital patient than on a healthy individual.**



# Poor IAQ Exacerbates:

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- **Asthma**
  - **Studies are finding links between cleaning chemicals and asthma.**
  - **20 million people suffer from asthma.**
  - **Including 6.1 million children under 18.**
- **Chronic Respiratory Illnesses**
- **Sick Building Syndrome**
- **Allergies and Other Sensitivities**

# Indoor Air Quality

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- **Americans typically spend 90% of their time indoors.**
- **Indoor concentrations of pollutants are commonly 3-5 times higher indoors than outdoor concentrations and can be as much as 100% higher.**
- **Indoor air quality is affected by cleaning products and processes, HVAC systems, interior finishes, exterior pollutants, any product (including personal care, markers, solvents, pesticides...), pets and pests.**

# The Cost of Poor Indoor Air Quality

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- **Asthma alone costs up to \$16.1 billion\***
- **Lost productivity**
  - **Improving IAQ would save \$200 billion\*\***
- **Healthcare for acute and chronic ailments**
- **Workers compensation claims**
- **Absenteeism in schools**

\*National Institutes of Health

\*\* EPA

# What is Environmentally Preferable Cleaning?

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- **Using less-toxic products**
  - **Green Seal Certified**
  - **Manufacturer Certified**
- **Using procedures that limit the use of chemicals**
  - **Identify your cleaning tasks**
  - **Use only the product needed for those tasks**

# Advanced Technology Equipment

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- **Reducing the need for the use of more-toxic cleaning products can be achieved by:**
  - **Installing dirt grabbing walk off mats at entrances**
  - **Using microfiber cloths and mops that pick up dirt**
  - **Employing high filtration vacuums and vacuum attachments on other floor care equipment**

# Implementation Support

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- **Win the support and cooperation of building occupants and staff**
  - **Educate building occupants about the program**
  - **Explain the health and productivity benefits of EP cleaning**
  - **Involve staff in pilot projects so they can feel a part of the new program**

# Implementation

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- Adopt an EP cleaning products policy
- Set up a pilot project
- Have your manufacturer's representative help you select appropriate products
- Provide staff training for managers and custodial workers

# Resources

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- [www.ashkingroup.com](http://www.ashkingroup.com)
- [www.c2p2online.com](http://www.c2p2online.com)
- [www.gghc.org](http://www.gghc.org) -Green Guide for Health Care
- [www.greenhealth.com](http://www.greenhealth.com)
- [www.greenseal.org](http://www.greenseal.org)
- [www.h2e-online.org](http://www.h2e-online.org)
- [www.informinc.org](http://www.informinc.org)
- [www.newdream.org](http://www.newdream.org)
- [www.noharm.org](http://www.noharm.org)
- [www.sustainablehospitals.org](http://www.sustainablehospitals.org)